

REMARKS

Favorable reconsideration and allowance of the subject application are respectfully requested. Claims 6-8 and 17-22 are pending in the present application, with claims 6, 7, 17 and 22 being independent.

Drawings

Applicants thank the Examiner for approving the drawing changes submitted on March 3, 2003. Accordingly, six sheets of formal drawings are attached, incorporating the approved changes to Figs. 4, 5, 11, 14, 29, and 30.

Claim Rejections 35 U.S.C. §103

The Examiner maintains the rejection against claims 6-8 under 35 U.S.C. §103(a) as being unpatentable over *Newman* (US 5,208,911) in view of *Trueblood* (US 5,463,702). The Examiner also rejects claims 17-22, which were previously added on March 3, 2003, under 35 U.S.C. 103(a) as being unpatentable over *Newman* in view of *Trueblood*. This rejection is respectfully traversed insofar as it pertains to the presently pending claims for the foregoing reasons.

Independent claims 6 and 7 have been amended in order to clarify that they are directed to a color characteristic

description apparatus for producing color characteristic data for use when supplied image data is converted into output image data. The color characteristic description apparatus comprises a multidimensional lookup table producing means for producing a multidimensional lookup table having color characteristic points representing the supplied image data. The color characteristic description apparatus also further comprises a multidimensional lookup table compression means for compressing the multidimensional lookup table.

Independent claim 6 further recites that the color characteristic data, which is produced by the color characteristic description apparatus includes the compressed multidimensional lookup table and an identifier. The identifier identifies a restoring method for restoring the compressed multidimensional lookup table.

Independent claim 7 further recites that the color characteristic data, which is produced by the color characteristic description apparatus includes the compressed multidimensional lookup table and software for restoring the compressed multidimensional lookup table.

As previously submitted, *Newman* is directed to a method and apparatus for storing and communicating a transformed definition,

which includes sample values representing an input/output relation of an image transformation; and *Trueblood* is directed to a method and apparatus for performing color compression that uses human factors in order to represent colors in an original image.

First, regarding claims 6, and 17-22, the Examiner acknowledges on page 7 of the Office Action that *Newman* does not disclose the feature of compressing a multidimensional lookup table, and cites *Trueblood* for support thereof.

Applicants respectfully submit that neither *Newman* nor *Trueblood* teach or suggest "an identifier for identifying a restoring method for restoring the compressed multidimensional lookup table," as recited in independent claims 6, 17 and 22. Moreover, the Examiner did not specifically state where or how *Trueblood* discloses the compression of a lookup table with an identifier.

Applicants noted on page 9 of the response dated March 3, 2003, that:

Added independent claims 17 (including dependent claims 18-21) and 22 should be considered allowable at least because the cited prior art fails to teach or suggest the combination of elements **including an identifier** for identifying a restoring method for restoring the compressed multidimensional lookup table.

(Emphasis Added). Therefore, Applicants respectfully submit

that the Examiner failed to substantiate a *prima facie* case of obviousness. A requirement in establishing a *prima facie* case of obviousness is that the prior art reference must teach or suggest all the claim limitations, see *In re Vaeck*, 947 F.2d 48, 20 USPQ2d 1438 (Fed.Cir.1991).

The Examiner merely alleges on page 5 of the outstanding Office Action that "Trueblood discloses the compression of [a] lookup table with an identifier to store the LUT...." Applicants respectfully submit, and as stated above, that this conclusionary statement made by the Examiner is not a proper basis to substantiate an obviousness rejection.

Recent Federal Circuit case law precedent, discussed further below, makes it explicitly clear that the factual question of motivation is material to patentability and cannot be resolved on subjective belief and unknown authority, but must be read on the objective evidence of the record. Federal Circuit case law precedent further requires that "common sense and common knowledge" alone is improper evidence in support of an obviousness rejection.

The Examiner purports a common sense and common knowledge reason for the deficiencies of *Newman*, in other words, stating that *Trueblood* discloses the compression of a lookup table with an identifier to store the LUT. However, common sense and knowledge

are not objective evidence of record, as the Federal Circuit explains, but are in fact commensurate with subjective belief and unknown authority. Therefore, the Examiner has failed to meet the legal requirements to substantiate the obviousness rejection.

For an illuminating discussion on the burden placed on an Examiner to establish objective factual findings of record, the Examiner is referred to the recent Federal Circuit decision of *In re Lee*, 61 USPQ2d 1430 (CAFC 2002).

In re Lee involved an appeal of a decision of the Board of Patent Appeals in which Lee argued that the Examiner failed to provide a source of a teaching, suggestion, or motivation to combine the applied prior art to arrive at the claimed invention. The Board responded to these arguments by ruling that "[t]he conclusion of obviousness may be made from common knowledge and common sense of a person of ordinary skill in the art without any specific hint or suggestion in a particular reference." *Id.* at 1432. The Federal Circuit overturned the Board's decision "for failure to meet the adjudicative standards for review under the administrative procedure act." *Id.* at 1431. The Federal Circuit further stated that "the factual inquiry whether to combine references must be thorough and searching...it must be based on objective evidence of record...[t]his precedent has been reinforced

in a myriad of decisions and cannot be dispensed with." Id. at 1433. The Court also stated that the USPTO is "not free to refuse to follow Circuit precedent" and "cannot rely on conclusionary statements when dealing with particular combinations of prior art and specific claims." Id. at 1434.

As stated herein above, the Examiner's asserted modification for *Trueblood*, which is "the compression of [a] lookup table with an identifier to store the LUT," and the lack of factual support thereof comports very closely to the analysis disapproved by the Federal Circuit in *In re Lee*. As such, the Examiner's failure to provide factual support for a teaching, suggestion or motivation constitutes legal error.

Moreover, *Trueblood* also fails to teach or suggest a multidimensional lookup table compression means for compressing the multidimensional lookup table. Referring to col. 1, lines 30-33 of *Trueblood*, it is specifically stated that "for purposes of this document the terms 'color compression' or simply 'compression' and like terms are intended to mean any process **for reducing the number of colors in an image**," emphasis added. In other words, the data representing the image in *Trueblood* is not compressed such that upon restoration the same data represents the image, but that the amount of data is actually reduced, which is discussed further

below.

In contrast thereto, the present invention compresses the entire multidimensional table, such that upon restoration of the multidimensional table the multidimensional table duplicates the multidimensional table prior to being compressed.

Regarding the rejection as applied to claims 7 and 8, *Newman* transforms and compresses image data into RGB -> LUV. *Trueblood* compress image data into image data of k color by using a CLUT (Color Look-Up Table). *Trueblood* prepares the CLUT structure with only a necessary number while referring to the histogram of the image data at a stage where the CLUT is prepared.

In the case where the number of colors, which exist in the process is small, the size of the LUT becomes small. However, this does not mean that it is necessary to compress the LUT.

In a case of an image whose number of colors are small, the CLUT merely becomes small in size in the process where the image data is compressed. Therefore, in order to restore the image data, the LUT is reversely used for referring to the table. Since the CLUT is prepared on the basis of the histogram of the image data, there is no disclosure in *Trueblood* that the CLUT is restored, see, for example, Fig. 4 of *Newman* and Fig. 2 of *Trueblood*.

In contrast thereto, according to an embodiment of the

invention, and as shown in Fig. 16, the image data and the LUT are compressed for the purpose of reducing the load in the communication process. The present invention assumes that an image input device and an image output device are different devices and are located spatially apart from one another. Since a receiving side, such as the output device, must restore the image data and the LUT, which have been compressed for use, there is provided a restoring function. In other words, the features that the LUT or the like is generated, compressed, communicated, and restored for use are not taught by *Newman* or *Trueblood*.

Accordingly, in view of the above discussion, Applicants respectfully request that the Examiner withdraw the rejections and further the claims to issue.

Conclusion

In view of the above amendments and remarks, this application appears to be in condition for allowance and the Examiner is, therefore, requested to reexamine the application and pass the claims to issue.


Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at telephone number (703) 205-

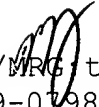
8000, which is located in the Washington, DC area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment: Six (6) Sheets of Corrected Formal Drawings